CLAIMS

1. An anisotropically conductive connector comprising an anisotropically conductive film, in which a plurality of conductive path-forming parts each extending in a thickness-wise direction of the film are arranged in a state mutually insulated by insulating parts,

wherein the anisotropically conductive film is formed by an insulating elastic polymeric substance, conductive particles exhibiting magnetism are contained in the conductive path-forming parts, and a reinforcing material formed of insulating mesh or nonwoven fabric is contained in a surface layer portion on one surface side of the anisotropically conductive film.

2. The anisotropically conductive connector according to claim 1, wherein the reinforcing material is formed of mesh, and supposing that an opening diameter of the mesh is r1, and an average particle diameter of the conductive particles is r2, a ratio r1/r2 is at least 1.5.

3. The anisotropically conductive connector according to claim 1 or 2, wherein the reinforcing material is formed of mesh, and the opening diameter of the mesh is at most 500 μm.

4. The anisotropically conductive connector according to any one of claims 1 to 3, wherein a supporting body for supporting a peripheral edge portion of the anisotropically conductive film is provided.

5. The anisotropically conductive connector according to any one of claims 1 to 4, which is an anisotropically conductive connector for conducting electrical connection between electrodes to be inspected of a circuit device, which is an object of inspection, and inspection electrodes of a circuit board for inspection by being intervened between the circuit device and the circuit board for inspection,

wherein a reinforcing material formed of insulating mesh or nonwoven fabric is contained in a surface layer portion, with which the circuit device comes into contact, on one surface side of the anisotropically conductive film.

6. The anisotropically conductive connector according to claim 5, wherein particles exhibiting neither conductivity nor magnetism are contained in the surface layer portion, with which the circuit device comes into contact, on one surface side of the anisotropically conductive film.

7. The anisotropically conductive connector according to claim 6, wherein the particles exhibiting neither conductivity nor magnetism are diamond powder.

8. The anisotropically conductive connector according to any one of claims 5 to 7, wherein conductive path-forming parts, which are not electrically connected to the electrodes to be inspected of the circuit device that is the object of inspection, are formed in the anisotropically conductive film in addition to the

conductive path-forming parts electrically connected to the electrodes to be inspected.

9. The anisotropically conductive connector according to claim 8, wherein the conductive path-forming parts, which are not electrically connected to the electrodes to be inspected of the circuit device that is the object of inspection, are formed at least at the peripheral edge portion of the anisotropically conductive film supported by the supporting body .

10. The anisotropically conductive connector according to claim 8 or 9, wherein the conductive path-forming parts are arranged at a fixed pitch.

11. A process for producing an anisotropically conductive connector having an anisotropically conductive film, in which a plurality of conductive path-forming parts each extending in a thickness-wise direction of the film are arranged in a state mutually insulated by insulating parts, which comprises the steps of:

providing a mold for molding the anisotropically conductive film, the molding cavity of which is formed by a pair of forces,

forming, on a molding surface of one force, a molding material layer obtained by incorporating a reinforcing material formed of insulating mesh or nonwoven fabric and conductive particles exhibiting magnetism into a liquid polymeric substance-forming material, which will become an elastic polymeric substance by curing, and moreover forming,

on a molding surface of the other force, a molding material layer obtained by incorporating conductive particles into a liquid polymeric substance-forming material, which will become an elastic polymeric substance by curing, and

stacking the molding material layer formed on the molding surface of said one force and the molding material layer formed on the molding surface of the other force, thereafter applying a magnetic field having an intensity distribution to the thickness-wise directions of the respective molding material layers, and subjecting the molding material layers to a curing treatment, thereby forming the anisotropically conductive film.

12. An inspection apparatus for circuit devices, comprising a circuit board for inspection having inspection electrodes arranged correspondingly to electrodes to be inspected of a circuit device, which is an object of inspection, and

the anisotropically conductive connector according to any one of claims 5 to 10, which is arranged on the circuit board for inspection.

13. The inspection apparatus for circuit devices according to claim 12, wherein a pressurizing force-relaxing frame for relaxing the pressurizing force of the electrodes to be inspected against the anisotropically conductive film of the anisotropically conductive connector is arranged between the circuit device, which is the object of inspection, and the anisotropically conductive connector.

14. The inspection apparatus for circuit devices according to claim 13, wherein the pressurizing force-relaxing frame has spring elasticity or rubber elasticity.